

## INTUSSUSCEPTION.

DR. L. A. GREENSFELDER reported the case of a man, aged eighteen years, who walked into the hospital, August 11, 1904. On admission at 3 P.M., the following history was obtained: Illness began six days ago, with a sudden, severe pain in the epigastric region, with nausea, vomiting, and constipation. Patient then consulted a physician, who prescribed castor oil, magnesia, etc., all of which the patient promptly vomited. During the first three days of the attack patient had a number of loose, watery bowel movements, with continual vomiting. The three days prior to admission was constipated. The pain in last few days become localized in the right iliac region. No chills, no headaches, cannot sleep, and has vertigo when he walks. Past history was negative. Never had a similar attack. No sickness of consequence.

Physical examination of abdomen revealed a tumor in the right iliac region. The abdomen was not tympanitic, and the tumor mass could be felt by rectum. Temperature, 98.8° F.; pulse, 114; respirations, 24.

*Urinalysis.*—Specific gravity, 1031; urea, 3.0 per cent.; no albumen; no sugar; indican present. Leucocytes few. No casts.

White blood count, 15,400 at 4 P.M.; 15,200 at 7 P.M. High rectal tube was introduced; no flatus was passed. He was given a low pressure enema, after which considerable blood was passed. Nothing was given by mouth, but rectal feeding of peptonized milk and beef peptonoids was given every six hours. Ice-bag to abdomen during first twelve hours. Temperature remained at 100° F.; pulse, 82 to 88. Had a slight bowel movement at 4 A.M. and 7 A.M., with flatus and considerable blood.

August 12. Temperature, 98.8° F.; pulse, 82; respirations, 24. Amount of urine in twenty-four hours, thirteen ounces. Urinalysis negative. White blood count, 12,600. One bowel movement at 9 P.M. and another at 10 P.M., both containing blood.

August 13. At 2 A.M. vomited considerable amount of brownish fluid. At 4 A.M. complained of severe pain in right iliac region; abdomen was slightly rigid; pulse, 84; temperature, 99° F.; respirations, 24. At 11.30 A.M. was taken to the operating room. Under ether anesthesia, a four-inch incision was made along outer border of right rectus. As soon as peri-

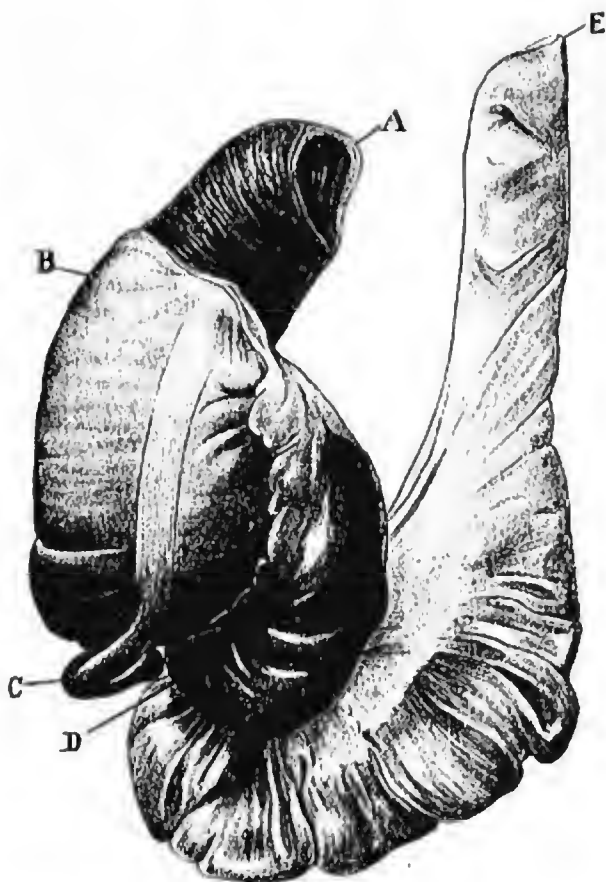


FIG. 1.—Intussusception. *A*, apex of intussusciens; *B*, caecum; *C*, appendix; *D*, entering ring; *E*, ileum. Length of bowel resected, forty-six inches.

toneum was opened, an intussusception (Fig. 1) was found at the ileocaecal valve, and lifted out of the abdomen. The small bowel entered the large bowel for a distance of about six or seven inches. Bowel was found to be gangrenous for about three feet. The gangrenous portion, consisting of ileum and colon, was resected by clamping off the gangrenous portion with two clamps at each end and dividing between. The mesentery was clamped off and cut; all bleeding points arrested; the bowel was kept warm by the application of hot sponges, and edges of wound protected by gauze packing. The cut end of the colon was then closed by two layers of catgut sutures, one penetrating all the coats of the bowel and the second by a Lembert suture. Mesentery was next sutured. Repeated attempts were then made to place a purse-string suture around the cut end of the ileum and introduce a Murphy button, but the tissues were so friable that it was found impossible. The cut end of the ileum was then sutured to the abdominal wall, forming an artificial anus. Rubber tube was inserted into small bowel through artificial anus, and skin incision closed with silk sutures. A Mikulicz drain was inserted just below artificial anus, and dry gauze dressing applied. Patient put to bed in a very exhausted condition. Operation lasted two hours and ten minutes. A pint of normal salt solution was infused under each breast. Camphor in ether and strychnine sulphate were administered. Pulse, 164; temperature, 102° F.; respirations, 28. Dressings were saturated with faecal discharges frequently during the first six hours.

August 14. Temperature, 103.6° F.; pulse, 120 to 140; respirations, 28. Forty ounces of urine were voided in past twenty-four hours. Urinalysis negative. Patient taking water, milk, and Vichy by mouth. Had a comfortable night. Considerable faecal discharge through tube.

August 15. Temperature, 101° F.; pulse, 100 to 120; respirations, 24. Complaints of cough. Drank coffee, milk, Vichy, and water. Twenty-eight ounces of urine.

August 16. Temperature, 100° F.; pulse, 96 to 100; respirations, 24. Patient has taken broth, milk, and Vichy.

Urine, twenty-two ounces. Urinalysis negative. Mikulicz packing removed, and one gauze drain inserted into wound. A number of bowel movements through artificial anus.

August 17. Temperature, 99° F.; pulse, 82; respirations, 22. Wound redressed three times. Urine, twenty-nine ounces.

August 18. Temperature, 98.6° F.; pulse, 84; respirations, 24. Urine, thirty ounces. Frequent changes of dressing were required.

August 19. Temperature, 98.6° F.; pulse, 80; respirations, 24. Patient taking rice soup, egg, milk, and tea.

Patient then continued with normal temperature and pulse, but on account of a severe dermatitis of abdomen and infection of skin edges of the wound, the second operation was delayed until conditions were more favorable.

On September 19, 1904, thirty-eight days after his first operation, the patient was again anesthetized, and the following operation performed by Dr. E. Wyllys Andrews:

An incision about five inches long was made just to right of rectus muscle, beginning about an inch below costal arch, and carried through muscles and peritoneum. When intestines were exposed, it was found that extensive adhesions had formed between omentum and intestines. These were partly freed and the colon was brought into view. The artificial anus was obliterated by cutting the skin around anus and clamping ileum, which formed the anus. The part above clamp was severed and ileum ligated with strong catgut, and stump covered with Lembert suture. Then a portion of the ascending colon and ileum were brought into view and Lembert suture silk united their serous surfaces. Then incisions were made into colon and ileum, about one and a half inches long, and cut edges united by a Connell suture. The Lembert suture was now continued, and knot tied within lumen of bowel. The omentum was laid over bowel. Iodoform gauze drains were inserted at the site of the artificial anus, and peritoneum was closed with interrupted catgut sutures. Skin closed with silkworm gut and horsehair sutures. Dry gauze dressing applied.

Patient experienced no shock from operation, and following day temperature was 99° F.; pulse, 88; respirations, 20.

August 25. Had first bowel movement. Temperature and pulse have been normal since.

November 4. There is a very small fistula, which contains a drainage tube. Patient is up and in good condition.

DR. E. WYLLYS ANDREWS said that the matter of friability

of the intestine had been called to his notice in at least two cases, which seemed to be more analogous to a fat necrosis or some kind of degeneration than to peritonitis. In the case reported by Dr. Greensfelder great difficulty was experienced in bringing the intestine out and attaching it to the button, or even to the abdominal wall, by reason of the extreme softness. It would not hold stitches, and this mere mechanical difficulty prolonged the operation very materially. At the time the speaker saw the patient later, when a Connell suture anastomosis was made, there was no such trouble.

A similar case to this was reported to him by Dr. Morgan, in which the stomach wall was very friable. It was a gall-stone case, and in manipulating the gall-bladder gently the finger of the operator tore directly into the stomach, making a large opening. It not only tore as wet paper would tear, but it was impossible to suture with needle or even pick up the tissue with forceps afterwards. The slightest touch would tear through it. He never saw the stomach in that condition before. He attributed it to fat necrosis generalized over the adjacent organs. This was probably a case of pancreatitis, the generalized fat necrosis extending to and involving the stomach wall. He was quite sure that peritonitis alone, or mere hypertrophy and distention of the hollow viscera above a point of obstruction, could hardly explain the condition.

DR. ALBERT J. OCHSNER showed a specimen from a case of intussusception. The patient was a child, fifteen years of age, in whom a diagnosis of intussusception was made seven days after operating for an acute appendicitis. He thought the intussusception was about eight days old when a diagnosis was made, and that the appendicitis was an unimportant part of the condition for which the patient was operated first. In other words, the first diagnosis was wrong, at least so far as the serious condition was concerned.

DR. YATES stated that about three years previous to admission to the hospital the patient was supposed to have had an acute attack of inflammation of the bowels. There were bloody stools, etc. The patient's recovery from this attack was rather rapid. The second intussusception took place in the ileum; the invaginated portion was fifty-two centimetres long. It had existed long enough for the intussusceptum to become gangrenous, so

that the intussuscepiens protruded through the wall of the intussusceptum.

Two days after the onset of the second attack, the patient was sent to the hospital by his physician with a diagnosis of appendicitis, which was confirmed and an immediate operation performed. Upon opening the abdomen, Dr. Ochsner noticed an excess of serum, which was the only feature not referable to the appendicular condition. The boy did not react well after the operation, and because of nausea received but limited amounts of water by mouth. This masked the symptoms by controlling peristalsis.

At the second operation, a week later, it was found that the gangrenous portions of the intussusception had been completely walled off from the general peritoneal cavity by adhesions formed by contiguous loops of intestine and the omentum and preventing a general peritonitis. The gangrenous portions had acted as a foreign body, produced a localized peritonitis which the absence of vermicular intestinal movements had allowed to become enclosed in the adhesions thus stimulated. On the twelfth day symptoms of obstruction reappeared, and an enterostomy was done for its relief. Death occurred the next day, with no evidence of a general peritonitis.

DR. JACOB FRANK said that about two years ago he reported a case of intussusception of the ileum into the cæcum in a child nine months of age, in whom he resorted to the use of the button, the child making a complete recovery. He showed the child before the Society one year after the operation.

With regard to sutures not holding when the intestine was friable, this was seen in cases of appendicitis when the intestine was œdematous. One could with difficulty get the sutures to remain in place without cutting through. In cases of intestinal disease in the acute stage where there was an œdematous or inflammatory condition, this was almost always found to be the case. He did not think it was due to pancreatitis or to fatty embolus. If it were, he thought we would have more deaths. He had found it in a large percentage of cases of appendicitis where the temperature ran high and where there was gangrene of the appendix.

DR. D. A. K. STEELE said that one point of interest in regard to the first case presented was the persistence of the intestinal

fistula, and whether that might not have been due to some foreign material retained in the abdominal cavity, or in connection with the inner end of the fistulous tract. Possibly the presence of the Connell suture might explain the persistence of the fistula.

With reference to the friability of the intestine and the difficulty of sutures holding, his experience had been the same as that of Dr. Frank. In many cases of acute inflammatory conditions of the intestine, particularly in appendicitis, and pus-tubes or infected tubes in women, there was great œdema of the adjacent parts, and the explanation given was correct, namely, that it was due to alteration in the wall of the intestine or tube from merely œdema. Dry paper did not tear easily, but if one would wet it, it would tear easily. The same thing could be said of the bowel wall in the same condition.

DR. L. L. McARTHUR said that it was to Koenig that credit was due for emphasizing the fact that the bowel was friable above the seat of obstruction far beyond that which appeared to the naked eye, and venous septic thrombosis was liable to occur which would terminate fatally, although there may have been perfect suturing, the bowel being friable the nearer it is to the gangrenous area, although being vascular and its nutrition not being materially impaired. These cases he (Koenig) said would die in spite of perfect suturing from a septic thrombophlebitis in that portion of the bowel above, which had not been excised far enough beyond. It was a wise thing to go much farther above than appeared necessary to get a good suture field for the purpose of getting beyond a venous thrombophlebitis, which would scarcely show externally, but which would show when one saw the mucosa and submucosa of that portion of the bowel. Cases of mesenteric thrombosis were extremely rare, and were of considerable interest because of the great difficulty of making a diagnosis before operation. He had occasion to look up the literature in regard to this subject at one time, some years ago, in presenting a paper to the Chicago Medical Society, and could only find a record of two cases in which the diagnosis was made before operation. In the case reported by Dr. Greensfelder, that lived to the fifth or nearly sixth day, Dr. Greensfelder did not state from what the patient died, whether there was leakage at the point, or whether the superior mesenteric artery, which sup-

plied the entire small intestine and transverse colon, had produced gangrene beyond that portion which had been resected.

DR. GREENSFELDER, in answering the question of Dr. Steele, stated that there was no intestinal fistula at present.

In regard to the remarks of Dr. McArthur, in the patient who had thrombosis of the mesenteric artery there was complete gangrene extending not only to the small bowel, but to part of the colon; death occurring undoubtedly from this condition.

Regarding the statistics of mesenteric thrombosis, he stated that 217 cases had been recently reported by Jackson, Porter, and Quinby in *Journal of the American Medical Association*, with a mortality of 94 per cent. in non-operated cases, and a mortality of 92 per cent. in the cases operated upon.

#### PERINEAL PROSTATECTOMY.

DR. JACOB FRANK reported the case of a man, aged seventy years, who consulted him at his office, May 15, 1904, complaining of having been troubled with frequent and painful micturition for nine months, passing very little urine at the time; and after having had to resort to the use of a catheter several times at intervals during this period, had been compelled to lead daily catheter life for the past five months, suffering agonizing pains, insomnia, anorexia, unbearable pain in bladder, loss in weight, a great deal of residual urine,—quantity in twenty-four hours, fifty-eight ounces, specific gravity, 1023. Albumen present; no sugar; abundance of pus-cells; also some squamous cells; reaction acid; no blood; urea, 2.1 per cent. in twenty-four hour specimen.

Patient was sent to the German Hospital, May 29, 1904. He was put to bed; kept on a strict liquid diet; urotropin, five grains, every four hours; lithia water in plenty; boric acid irrigation of bladder daily at a temperature of 110° F., and the daily use of the prostatic catheter, as the ordinary soft rubber one could not be introduced; normal salt solution twice daily per rectum, as the patient was emaciated and required careful nursing.

The prostate gland could easily be palpated *via* the abdomen; the lateral lobes were greatly enlarged and very tender. The operation was performed June 2, 1904, four days after admission to the hospital, under chloroform. The patient was put in exag-